


IN THE CLAIMS:

Please amend the claims as follows:

- 
1. (Original) A nucleic acid delivery vehicle having at least a tissue tropism for mesenchymal stem cells.
  2. (Original) The nucleic acid delivery vehicle of claim 1, further having at least partially reduced tissue tropism for liver cells.
  3. (Previously amended) The nucleic acid delivery vehicle of claim 2, wherein said tissue tropism is provided by at least a part of a virus capsid or a functional derivative and/or analogue thereof.
  4. (Original) The nucleic acid delivery vehicle of claim 3, wherein said virus capsid comprises proteins, or functional parts, derivatives and/or analogues thereof, from at least two different viruses.
  5. (Original) The nucleic acid delivery vehicle of claim 4, wherein at least one of said at least two different viruses is an adenovirus.
  6. (Previously amended) The nucleic acid delivery vehicle of claim 4, wherein at least one of said at least two different viruses is an adenovirus of subgroup B.
  7. (Previously amended) The nucleic acid delivery vehicle of claim 4, wherein at least one of said proteins comprises a tissue tropism determining part of a fiber protein derived from a subgroup B adenovirus a functional derivative and/or analogue thereof.
  8. (Previously amended) The nucleic acid delivery vehicle of claim 6, wherein said subgroup B adenovirus is adenovirus 16.

9. (Previously amended) The nucleic acid delivery vehicle of claim 6, further comprising at least one protein derived from an adenovirus not belonging to subgroup B, or a functional part, derivative and/or analogue thereof.

10. (Original) The nucleic acid delivery vehicle of claim 9, wherein said at least one protein or a functional part, derivative and/or analogue thereof not derived from an adenovirus of subgroup B is derived from an adenovirus of subgroup C.

11. (Previously amended) The nucleic acid delivery vehicle of claim 3, further comprising adenoviral nucleic acid.

12. (Previously amended) The nucleic acid delivery vehicle of claim 3, comprising adenoviral nucleic acid from at least two different adenoviruses.

13. (Previously amended) The nucleic acid delivery vehicle of claim 11, wherein said adenoviral nucleic acid at least encodes a fiber protein comprising at least a tissue tropism determining part of a subgroup B adenovirus fiber protein or a functional derivative and/or analogue thereof.

14. (Previously amended) The nucleic acid delivery vehicle of claim 11, wherein said adenoviral nucleic acid is a modified nucleic acid such that the capacity of said adenoviral nucleic acid to replicate in a target cell has been reduced or disabled.

15. (Previously amended) The nucleic acid delivery vehicle of claim 12, wherein said adenoviral nucleic acid is a modified nucleic acid such that the capacity of a host immune system to mount an immune response against adenovirus proteins encoded by said adenoviral nucleic acid has been diminished.

16. (Previously amended) The nucleic acid delivery vehicle of claim 3 further comprising a

minimal adenovirus vector or an Ad/AAV chimeric vector.

17. (Previously amended) The nucleic acid delivery vehicle of claim 3 further comprising at least one nucleic acid of interest.

18. (Previously amended) The nucleic acid delivery vehicle of claim 3, wherein said nucleic acid delivery vehicle is a subgroup B adenovirus capsid comprising at least one nucleic acid of interest.

19. (Original) The nucleic acid delivery vehicle of claim 18, wherein said at least one nucleic acid of interest further comprises at least one subgroup B adenovirus nucleic acid.

B1  
20. (Original) The nucleic acid delivery vehicle of claim 19, wherein said at least one subgroup B adenovirus nucleic acid has been deprived of the capacity to express E1-region encoded proteins.

21. (Previously amended) The nucleic acid delivery vehicle of claim 18, wherein said subgroup B adenovirus capsid is derived from adenovirus 16.

22. (Previously amended) A process for producing the nucleic acid delivery vehicle of claim 3, said method comprising:

providing a cell with means for the assembly of said nucleic acid delivery vehicle wherein said means includes a means for the production of an adenovirus fiber protein, wherein said adenovirus fiber protein comprises at least a tissue tropism determining part of a subgroup B adenovirus or a functional derivative and/or analogue thereof.

23. (Previously amended) A cell for the production of the nucleic acid delivery vehicle of claim 3, said cell comprising:

means for the assembly of said nucleic acid delivery vehicle wherein said means includes

a ~~means for the production of~~ nucleic acid encoding an adenovirus fiber protein, wherein said adenovirus fiber protein comprises at least a tissue tropism determining part of a subgroup B adenovirus fiber protein.

Claims 24-26. (Withdrawn)

27. (Currently amended) A method for the generation of a nucleic acid library comprising:  
isolating an adenovirus serotype 5 nucleic acid; and  
introducing a nucleic acid sequence encoding a fiber protein from a second adenovirus serotype into said adenovirus serotype 5 nucleic acid, thereby generating a nucleic acid library  
~~analyzing the nucleic acid delivery vehicle of claim 1.~~

28. (Original) A method for the delivery of nucleic acid to a mesenchymal stem cell comprising administering the nucleic acid delivery vehicle of claim 1, wherein said nucleic acid delivery vehicle comprises a fiber protein of adenovirus 16 or a functional part, derivative and/or analogue thereof.

Claims 29 and 30. (Withdrawn)

31. (Currently amended) A method for tissue engineering comprising administering the nucleic acid delivery vehicle of claim 1 to a primary cell, wherein said primary cell expresses said nucleic acid of interest.

Claims 32-37. (Withdrawn)

38. (Original) The nucleic acid delivery vehicle of claim 7, wherein said subgroup B adenovirus is selected from the group consisting of serotypes 11, 16, 35, and 51.

39. (Original) The nucleic acid delivery vehicle of claim 10, wherein said adenovirus of

subgroup C comprises serotype 5.

40. (Original) The nucleic acid delivery vehicle of claim 13, wherein said subgroup B adenovirus fiber protein is derived from the group consisting of serotypes 11, 16, 35, and 51.

41. (Original) The nucleic acid delivery vehicle of claim 13, wherein said subgroup B adenovirus fiber protein is derived from serotype 16.

42. (Original) The nucleic acid delivery vehicle of claim 11, wherein said nucleic acid is a modified nucleic acid such that the capacity of said nucleic acid to replicate in a target cell has been reduced or disabled through a deletion of at least part of the E1-region.

B 43. (Original) The nucleic acid delivery vehicle of claim 11, wherein said nucleic acid is a modified nucleic acid such that the capacity of a host immune system to mount an immune response against adenovirus proteins encoded by said nucleic acid has been reduced or disabled through a deletion of E2A and/or at least a part of the E4-region.

44. (Original) The method according to claim 22, wherein said subgroup B adenovirus is selected from the group consisting of serotypes 11, 16, 35, and 51.

45. (Original) The cell of claim 23, wherein said subgroup B adenovirus fiber protein is derived from the group consisting of serotypes 11, 16, 35, and 51.

46. (Original) The cell of claim 23, wherein said cell is or is derived from a PER.C6 cell.

47. (Currently amended) A method for ~~the generation of a nucleic acid library~~ generating a packaging cell, comprising:

introducing the gene delivery vehicle of claim 14 into a host cell;

introducing nucleic acid encoding a replication protein, derivative or functional fragment

Serial No. 10/010,645

thereof; and

identifying a host cell capable of complementing replication of said nucleic acid delivery vehicle analyzing the cell of claim 23.

---